Trace element levels of three mushroom species

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Abstract The aim of this study was to determine Cu, Fe and Cr contents of three species of fresh mushrooms and canned mushrooms: white and brown champignon (Agaricus bisporus) and Pleurotus Ostreatus. Were analyzed various plant parts: stem, cap and cuticle of fresh mushrooms and only stem and cap for canned mushrooms. The levels of trace metals of mushroom samples collected from regions of Romania, Poland and Turkey were determined by UV/Visible spectrometry - standard addition method after digestion method. The contents of investigated trace metals in mushroom samples were found to be in the range of 0.01 – 2.26 mg/Kg for chromium, 2.02 – 430.67 mg/Kg for copper and 240.40 – 7952.89 mg/Kg for iron. The iron content was found to be higher than those of the other two minerals in all the samples. Mushrooms species in the highest levels of trace elements were found white champignon for Cu and Fe and brown champignon for Cr.

Keywords: Cu, Fe, Cr, mushrooms, UV/VIS spectrometry.